ABSTRACT

A control for defining data for setting the times for controlled events in a glass forming machine which is controlled by a programmable sequencer which defines the time of a machine cycle. A computerized model of a mathematical representation of a network constraint diagram of the unwrapped bottle forming process is provided with computer analysis for analyzing the computerized model as a constrained optimization problem for determining, with inputs including the following:

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- 1. the motion durations of each of the mechanisms from the retracted position to the advanced position and from the advanced position to the retracted position,
 - 2. the submotion durations,
 - 3. the machine cycle time, and
- 4. the time in an unwrapped bottle forming process for each displacement to begin and for each valve to be turned "on" and "off", and
 - 5. the target time for an optimized machine cycle,
- 20 the machine cycle time and the event times for an optimized process.